City of Mesa
Annual Fatal Crash Analysis
2013

Transportation Department
Traffic Studies Group

mesa·az

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION AND BACKGROUND

The **2013 Fatal Crash Analysis** is a statistical review of the 23 fatal crashes that occurred on the City of Mesa streets in 2013. It focuses on vehicle crashes involving fatalities identified in the 2013 Police Accident Reports (PARs) investigated and reported by the City of Mesa Police Department. Crashes occurring on the Superstition Freeway (US 60), the Price Freeway (Loop 101), the Red Mountain Freeway (Loop 202), and the Santan Freeway (Loop 202), which are under the jurisdiction of the Arizona Department of Public Safety, were not included in the analysis.

The database used to prepare this report was compiled and maintained by the Traffic Records Section of the Arizona Department of Transportation in conjunction with the crash database maintained by the City of Mesa Traffic Studies Group. Definitions and terms were extracted from the Arizona Crash Report Forms Instruction Manual, 9th Edition, dated 2010.

The purpose of analyzing fatal traffic crashes is to better understand the underlying causes of fatal crashes. Analysis of the crashes reveals facts about the types of streets where crashes happened, operator behavior, the times of day and year crashes occur, age, and gender of parties involved in fatal crashes. Once an understanding of the root causes of fatal crashes is gained, the Transportation Department can do further analysis to determine if the traffic environment in the City of Mesa can be made safer. Analysis of fatal crashes also helps in developing appropriate messages for educating the public.

Percentages shown may total more or less than 100% due to rounding.

National statistics contained in this report were obtained from the Fatality Analysis Reporting System (FARS) Web-Based Encyclopedia. Unless otherwise stated, statistics are from the calendar year 2013.

Questions or comments concerning this report should be directed to City of Mesa:

City of Mesa, Transportation Department
Telephone: 480.644.2160
Email: transportation.info@Mesaaz.gov

1.2 FACTS AND FIGURES

- In 2013 there were 23 fatal crashes resulting in 28 fatalities.
- Fatal crashes decreased in frequency from 24 in 2012 to 23 in 2013.
- Mesa's fatal motor vehicle crashes per 100,000 population was 6.0 which was below the 2013 national average of 10.8.
- Fatal crashes were located on arterial streets in 87.0% of all fatal crashes.
- Mid-block crashes accounted for 52.2% of all fatal crashes.

- Males were the victims in 78.6% of all fatal crashes.
- When normalized, the “65 to 74” age group had the highest over-representation of all age groups at 2.34 fatalities per 10,000 population.
- Pedestrian and pedalcycle crashes accounted for 21.7% of all fatal crashes.
- There were six motorcycle crashes that accounted for 26.1% of all fatal crashes.
- Left turn crashes were the most frequent fatal crash manner at 21.7% of all fatal crashes.
- Alcohol or drugs were involved in 17.4% of all fatal crashes.
- January, May, June, and July shared the highest percentage of fatal crashes in a month at 13.0% each of all fatal crashes.
- Wednesday had the most frequent crashes by day of week at 26.1% of all fatal crashes.
- The hours of 2:01 PM to 8:00 PM had the highest fatal crash frequency over the last five years at 39.8% of all fatal crashes.

1.3 DEFINITIONS

Angle. A front to side collision, other than left turn, where two motor vehicles approaching from an angle collide; usually resulting in a “T-bone” crash.

Delayed Fatality. Any crash fatality where the victim died after the investigation was completed. State and federal guidelines allow a delayed fatality up to 30 days from the time listed in the report where death was due to causes related to the crash.

Fatal Injury. Any injury that results in death within 30 – 24 hour time periods after the crash occurred.

Intersection Related Crash. Location of the crash next to an intersection, on the approach to or the exit from an intersection, and results from an action related to the movement of traffic units through the intersection. In the State of Arizona this distance is normally defined as 150 feet; on the approach to an intersection; unless, specifically stopped in traffic at a red light where traffic was backed up and the crash was related to the traffic stopped for traffic signal (example: rear end collision).

Left Turn. Two motor vehicles traveling in opposite directions, prior to the crash, where at least one vehicle is making a left turn.

Pedalcycle. Any non-motorized vehicle propelled by pedaling. Includes bicycle, tricycle, unicycle, pedal car, etc.

Pedestrian. Any person who is not an occupant of a motor vehicle in transport. Includes a person who is adjacent to the motor vehicle regardless of his/her actions. NOTE: If an occupant falls from a vehicle and

is struck by his/her own vehicle this is not a collision with a pedestrian.

Rear End. A front to rear crash where the front of one motor vehicle impacts the rear of another motor vehicle.

Roadway. The part of the trafficway which includes the roadway and the shoulder alongside the roadway.

Traffic Unit. A traffic unit is a vehicle, pedestrian, pedalcyclist, or rider on an animal involved in a motor vehicle traffic accident. Traffic unit number is used as an identifier for each involved unit (i.e. U1, U2, U3, etc). It is preferred that police jurisdictions assign traffic unit number 1 (U1) to the vehicle, pedestrian, pedalcyclist, or animal rider causing the collision, however, this procedure is not mandatory.

2.0 TRENDS

2.1 FIVE YEAR CRASH TREND – MESA

The number of fatal crashes has fluctuated over the past five years with a high of 27 in 2011 and a low of 15 in 2010. The 23 fatal crashes recorded in 2013 were higher than the five-year average of 21.6.

Normalization gives perspective on an increase or decrease in the number of fatal crashes when there is a concurrent rise in the number of motor vehicles, cyclists, and pedestrians due to population growth (and a consequent increase in opportunities for fatal vehicle conflicts). The number of fatal crashes is normalized by looking at how many fatal crashes occur per every 100,000 people in Mesa's population in a given year. In 2013 the normalized fatal crash value was 6.0, which increased from 5.1 in 2012.

TABLE 1: FATAL CRASHES - FIVE YEAR TREND

Year	Number of Fatal Crashes	Number of Fatalities	Number of Total Vehicle Crashes	Estimated Population*	Fatalities Per 100,000 Population	Fatalities per 100,000 Population Percent Change From Yearly Average
2009	19	21	5,504	466,325	4.5	-5.1%
2010	15	15	5,118	467,912	3.2	-32.5%
2011	27	29	5,178	468,012	6.2	30.8%
2012	24	24	5,134	468,012	5.1	7.6%
2013	23	28	5,313	468,012	6.0	-0.8%
Average	21.6	23.4	5,249	467,655	5.0	-

*Population estimates provided by the City of Mesa Planning Department, as of January 2011.

Trendlines are used to graphically display trends in data and to analyze problems of prediction. The trendlines shown in Charts 1 and 2 are a best-fit straight line that is used with simple linear data sets. A linear trendline usually shows that something is increasing or decreasing at a steady rate. The trendline for fatal crashes shows no significant change over the past five years. The trendline for total vehicle crashes also shows no significant change over the past five years.

CHART 1: TOTAL NUMBER OF FATAL CRASHES

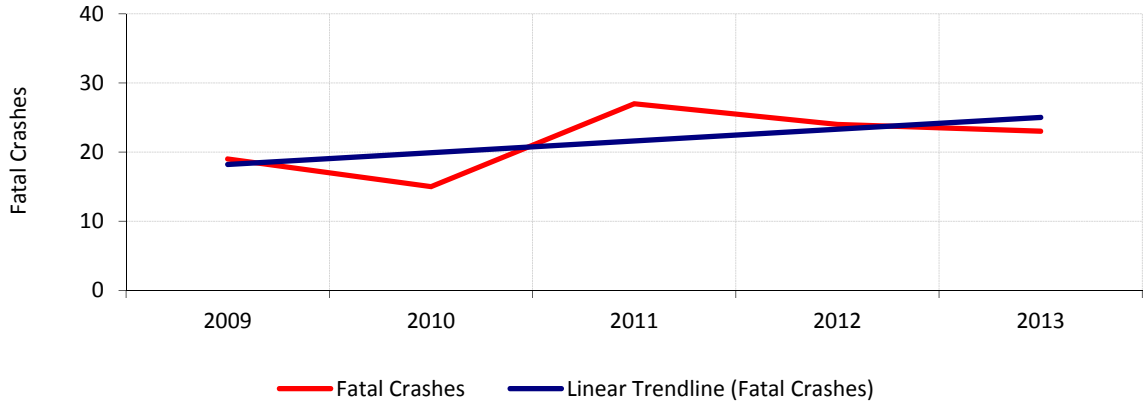
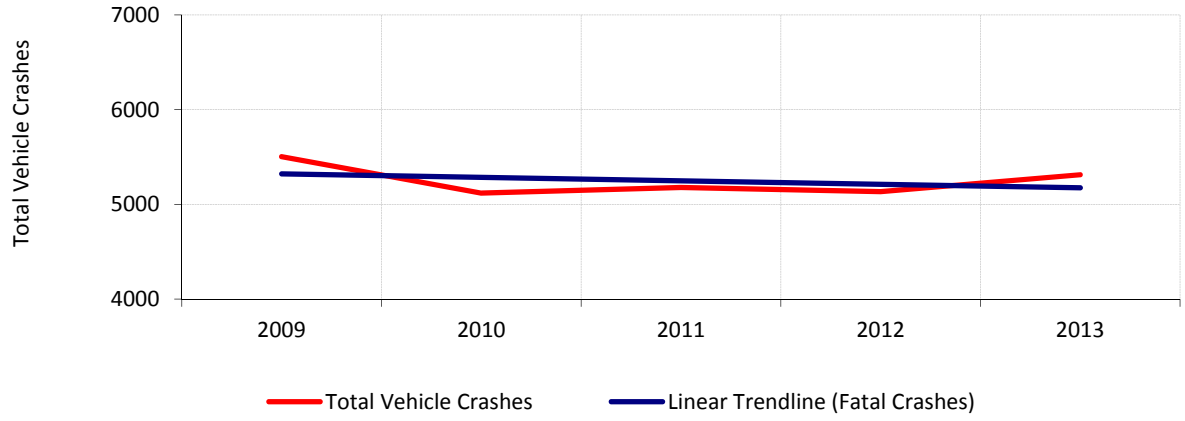


CHART 2: TOTAL NUMBER OF ALL VEHICLE CRASHES



2.2 NATIONAL COMPARISON

Mesa has experienced a general downward trend in fatalities over the past ten years with a distinct spike in 2005 and 2006. The U.S. Department of Transportation, National Center of Statistics & Analysis, figure indicates a 3.3% decrease in fatalities from 2012 to 2013. Nationally, there has been an overall decline in fatalities over the past 10 years.

CHART 3: MESA TOTAL FATALITIES

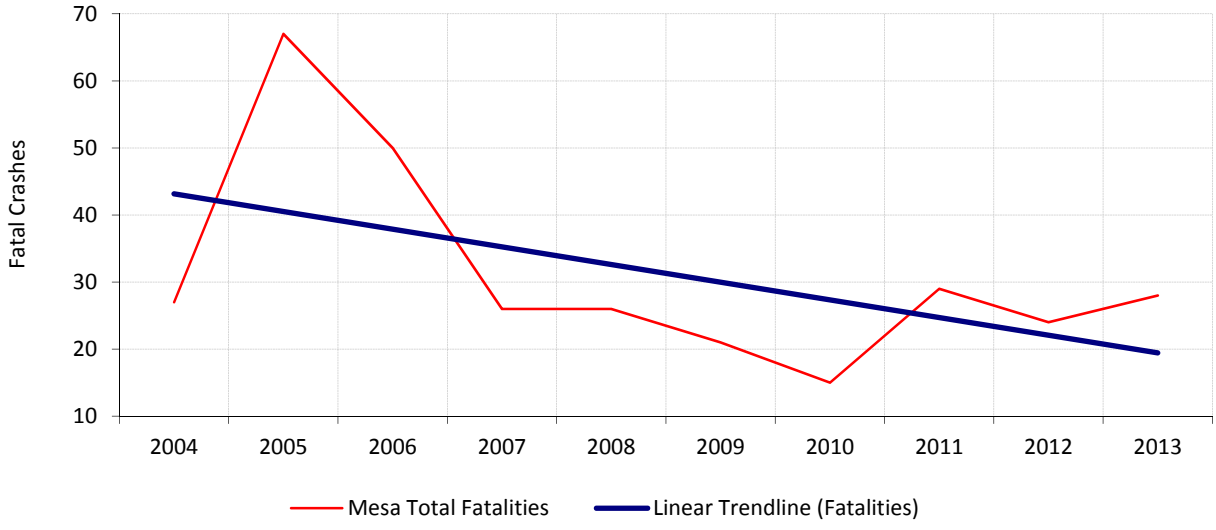
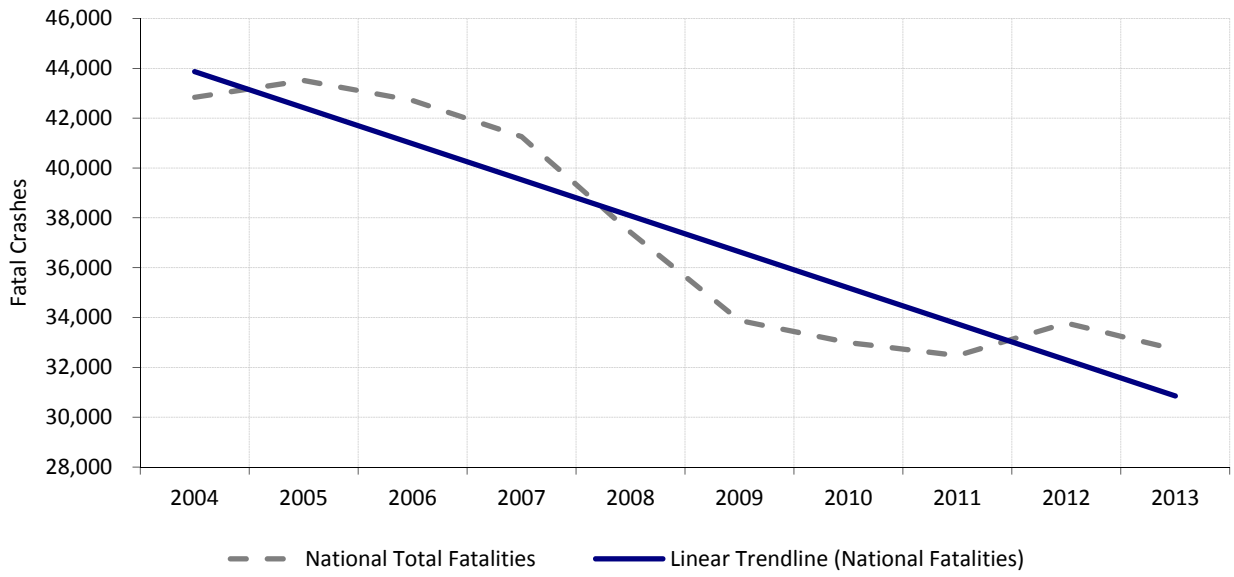


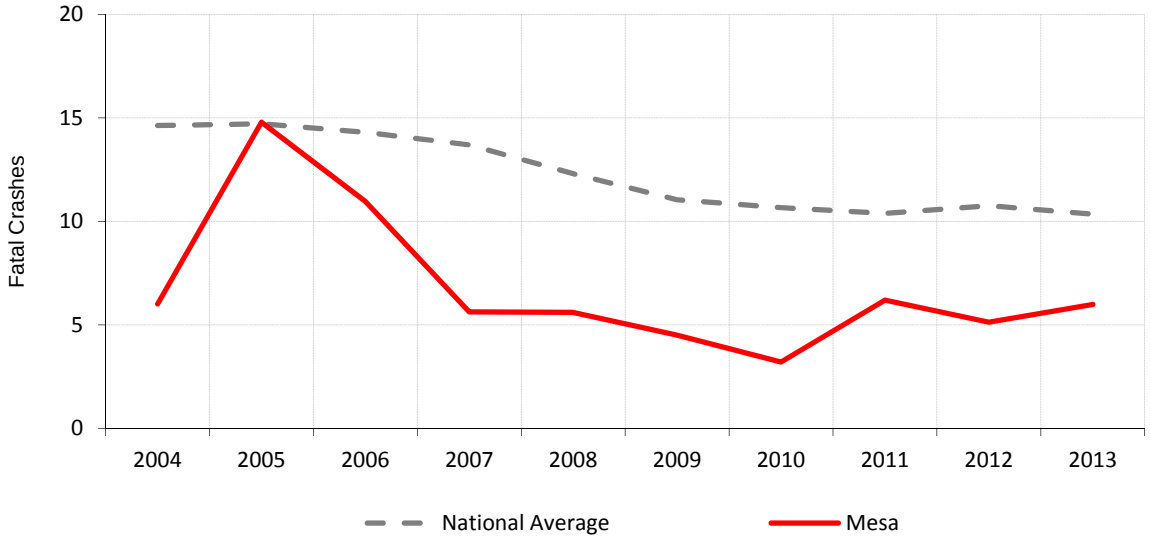
CHART 4: NATIONAL TOTAL FATALITIES



2.3 TEN YEAR CRASH TREND – MESA and NATIONAL AVERAGE

Mesa has consistently experienced fewer annual normalized fatalities per 100,000 population than the national average. Nationally, fatalities per 100,000 population was 10.4 in 2013 which decreased from 10.8 in 2012. Mesa experienced 6.0 fatalities per 100,000 population in 2013 which increased from 5.1 in 2012.

CHART 5: FATALITIES PER 100,000 POPULATION - MESA and NATIONAL AVERAGE



3.0 LOCATION

3.1 STREET CLASSIFICATION

Arterial streets are roadways that often extend across city boundaries, carry large volumes of traffic, and may have limited access to properties along the roadway. Broadway Road and Power Road are examples of arterial streets.

Collector streets are roadways that collect and carry traffic between local and arterial streets and can provide access to abutting properties. McLellan Road and Horne are examples of collector streets.

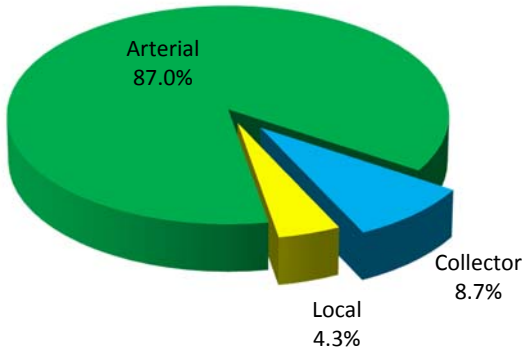
Local or residential streets are low volume streets in residential and commercial areas.

Of the 23 fatal crashes, 87.0% occurred on arterial streets. Because of higher speeds, higher volumes of traffic and greater widths associated with arterial roadways, a greater potential for fatal injuries exists on arterial streets.

TABLE 2: FATAL CRASHES BY TYPE OF ROADWAY

Type of Roadway	Number of Fatal Crashes	Percent of Total Fatal Crashes
Arterial	20	87.0%
Collector	2	8.7%
Local	1	4.3%
Total	23	100.0%

CHART 6: FATAL CRASHES BY TYPE OF ROADWAY



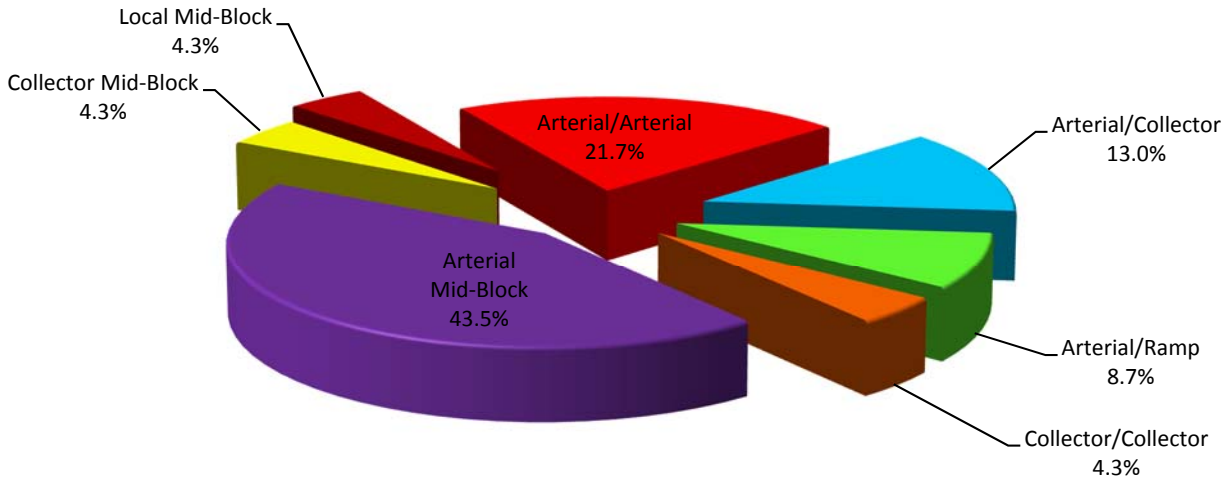
3.2 INTERSECTION CLASSIFICATION

Of the 11 intersection related crashes, ten occurred at intersections having at least one approach classified as an arterial street. Intersection related crashes accounted for 47.8% of all fatal crashes. Mid-block fatal crashes occurring on arterials accounted for 43.5% of all fatal crashes. As previously stated, because of higher speeds, higher volumes of traffic, and wider roadways associated with arterials the potential for a higher frequency of fatal injuries exists.

TABLE 3: CLASSIFICATION OF INTERSECTIONS

Intersection Related	Number of Fatal Crashes	Percent of Total Fatal Crashes
Arterial/Arterial	5	21.7%
Arterial/Collector	3	13.0%
Arterial/Ramp	2	8.7%
Color/Collector	1	4.3%
Total Intersection	11	47.8%
Mid-Block Related	**Number of Fatal Crashes**	**Percent of Total Fatal Crashes**
Arterial Mid-Block	10	43.5%
Collector Mid-Block	1	4.3%
Local Mid-Block	1	4.3%
Total Mid-Block	12	52.2%
Total Intersection and Mid-Block Related	23	100%

CHART 7: CLASSIFICATION OF INTERSECTIONS



3.3 GEOGRAPHIC LOCATION

2013 Fatal Crash Locations. The occurrence of a crash is an unpredictable event that can occur when there is a failure in the roadway, motor vehicle, or motor vehicle driver. The probability that a crash will occur and cause a fatal injury is very low especially when considering a specific location. Due to the very low probability that fatal crashes will regularly occur at a specific location, fatal crashes are considered random events. While fatal crashes are considered random events there are general areas of the city that have higher concentrations of fatal crashes. Power Road experienced four fatal crashes, Ellsworth Road, McKellips Road, and Broadway Road each experienced three fatal crashes. A comparison of the number of crashes per mile was also conducted showing Lindsay Road with 0.33 crashes per mile, Power Road with 0.32 per mile, and Ellsworth Road with 0.25. The 2013 Fatal Crash Locations map is contained in the appendix.

2009 – 2013 Fatal Crash Locations. There have been a total of 108 fatal crashes during the five year period from 2009 to 2013. McKellips Road had the highest frequency of fatal crashes with 13 crashes, followed by Southern Avenue with ten, and Broadway Road at nine. A comparison of the number of crashes per mile was also conducted showing McKellips Road with 0.82 fatal crashes per mile, followed by Southern Avenue with 0.60, and Alma School Road at 0.58. The 2009-2013 Fatal Crash Locations map is contained in the appendix.

4.0 DEMOGRAPHICS

4.1 GENDER AND AGE

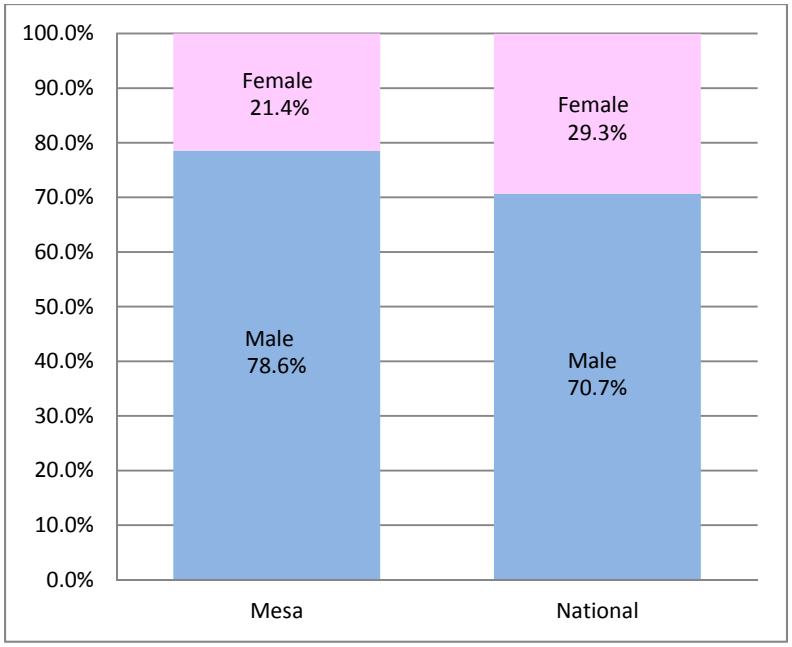
Certain groups of individuals, defined by gender and age, have a greater probability of being involved in fatal crashes.

GENDER. Males consistently had a much greater fatality rate than females in crashes**.** Males comprise 49.5% of Mesa's population, but were involved in 78.6% of all fatal crashes. The national percentage of male crash fatalities in 2013 was 70.7%.

TABLE 4: GENDER OF VICTIMS

Gender	Percent of Estimated Population	Number of Fatalities	Percent of Total Fatalities
Male	49.5%	22	78.6%
Female	50.5%	6	21.4%
Total	100%	28	100%

CHART 8: GENDER OF VICTIMS



AGE. When the number of crashes is normalized by looking at how many fatalities occur per every 10,000 people in each age group, the most over-represented age group is the 65-74 year-olds. See last column in Table 5. Two 65-74 year old victims were the drivers of Unit 1, two were the drivers of unit 2, one was the passengers of unit 2, two were pedestrians, and one was a pedalcyclist. The second highest over represented age group was the over 75 year-olds.

CHART 9: AGE OF VICTIMS

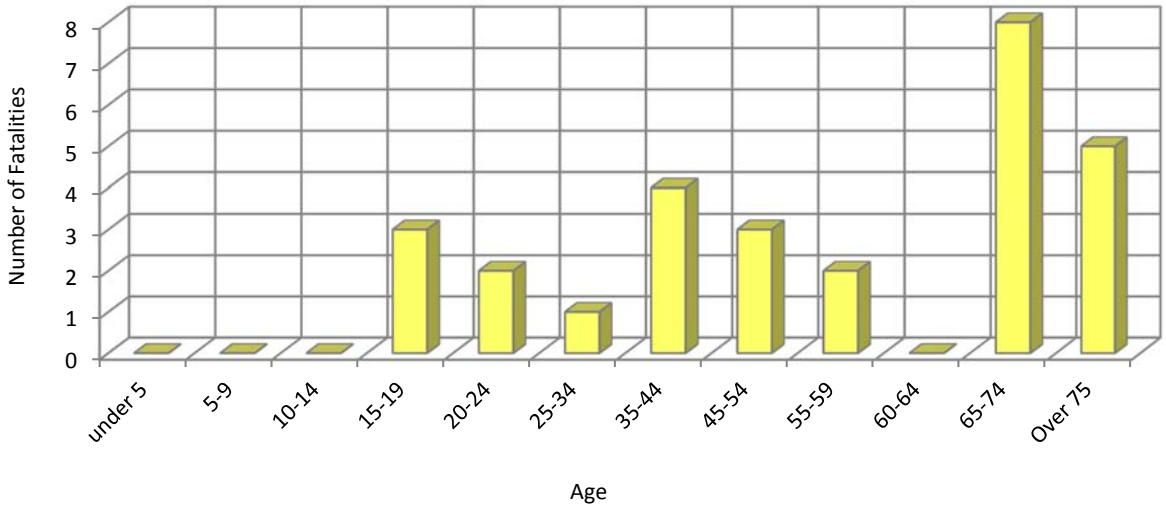
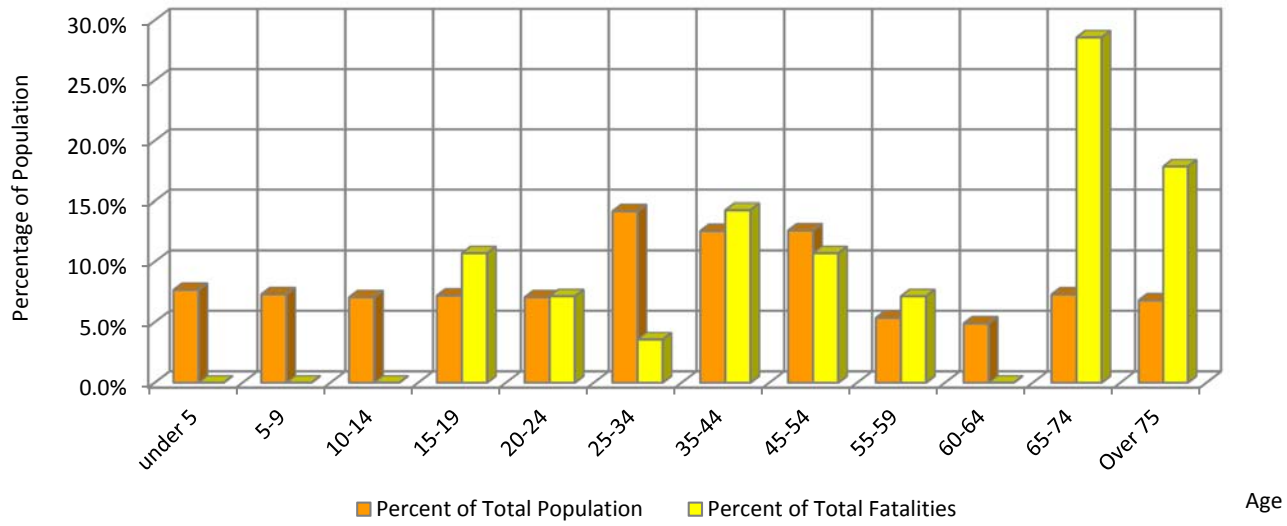


TABLE 5: AGE OF VICTIMS

Age	Population*	Percent of Total Population	Number of Fatalities	Percent of Total Fatalities	Fatalities per 10,000 Population
Under 5	35,897	7.7%	-	-	-
5 - 9	34,165	7.3%	-	-	-
10 - 14	33,042	7.1%	-	-	-
15 - 19	33,697	7.2%	3	10.7%	0.89
20 - 24	33,042	7.1%	2	7.1%	0.61
25 - 34	66,458	14.2%	1	3.6%	0.15
35 - 44	58,782	12.6%	4	14.3%	0.68
45 - 54	58,970	12.6%	3	10.7%	0.34
55 - 59	25,085	5.4%	2	7.1%	0.80
60 - 64	22,933	4.9%	-	-	-
65 - 74	34,118	7.3%	8	28.6%	2.34
Over 75	31,825	6.8%	5	17.9%	1.57
Unknown	-	-	-	-	-
Total	468,012	100.0%	28	100.0%	

*Estimated population information provided by the City of Mesa Planning Division.

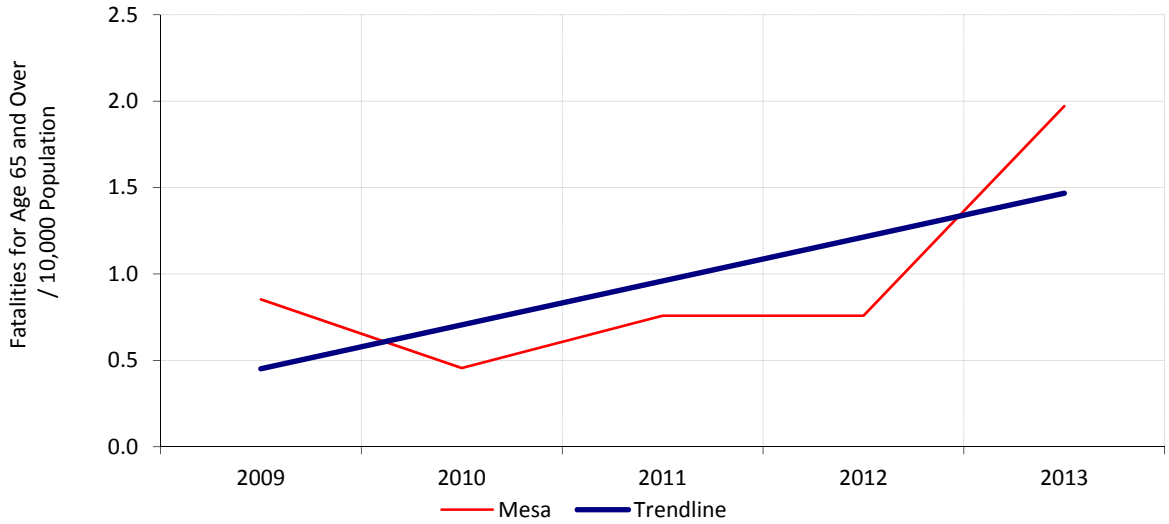
CHART 10: PERCENTAGE OF POPULATION and PERCENTAGE OF FATALITIES



4.2 ELDERLY DRIVERS

ELDERLY DRIVERS. The number of older drivers in the United States is expected to double over the next 30 years. As people age, a decline in sensory, cognitive, or physical functioning may make them less safe drivers, as well as more vulnerable to injury in a crash. Older Americans depend on automobiles for meeting their transportation needs and as Mesa's population continues to grow, it is expected that the number of older drivers on our roads will increase. The current fatality trend for drivers 65 and over is generally increasing in Mesa.

CHART 11: ELDERLY DRIVER FATALITIES



5.0 ANALYSIS

5.1 TRAFFIC UNIT TYPE

For the purposes of this analysis, the traffic unit types have been divided into four categories: Motor Vehicle, Motorcycle, Pedestrian, and Pedalcycle. Over the past five years the crash frequency of each unit type has generally fluctuated.

Table 7 and Chart 13 show the distribution of total fatalities by traffic unit type. In Mesa during 2013, combined motor vehicle and motorcycle fatalities comprised 78.3% of all fatal crashes and 83.2% of 2012 national fatalities. There were four fatal pedestrian crashes and one fatal pedalcycle crash in 2013.

TABLE 6: TRAFFIC UNIT TYPE - FIVE YEAR HISTORY

Unit Type / Year	Number of Fatal Crashes 2009	Number of Fatal Crashes 2010	Number of Fatal Crashes 2011	Number of Fatal Crashes 2012	Number of Fatal Crashes 2013
Motor Vehicle	11	7	15	9	12
Motorcycle	4	3	5	5	6
Pedestrian	4	2	5	8	4
Pedalcycle	2	3	2	2	1
Total	21	15	27	24	23

CHART 12: TRAFFIC UNIT TYPE - FIVE YEAR HISTORY

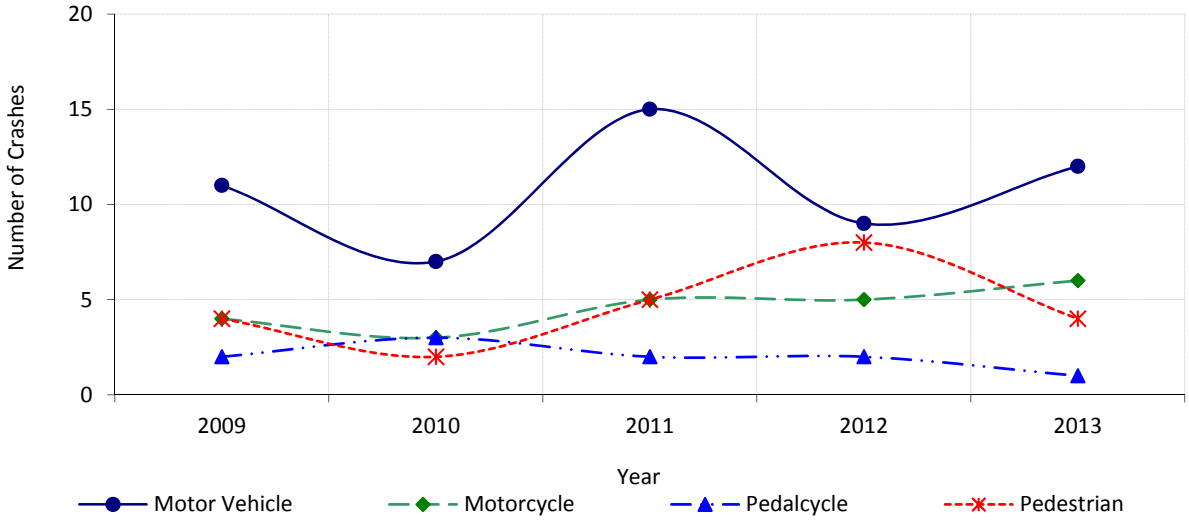
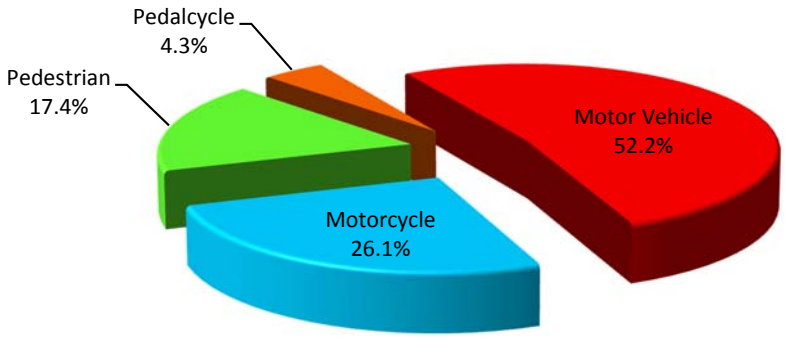


TABLE 7: TRAFFIC UNIT TYPE - TOTAL FATALITIES

Traffic Unit Type	Number of Fatal Crashes	Percent of Total Fatal Crashes	2012 National Percentage Fatal Crashes
Motor Vehicle	12	52.2%	68.4%
Motorcycle	6	26.1%	14.8%
Pedestrian	4	17.4%	14.3%
Pedalcycle	1	4.3%	2.2%
Unknown	-	-	0.7%
Total Fatalities	23	100.0%	100.0%

CHART 13: TRAFFIC UNIT TYPE - TOTAL FATALITIES



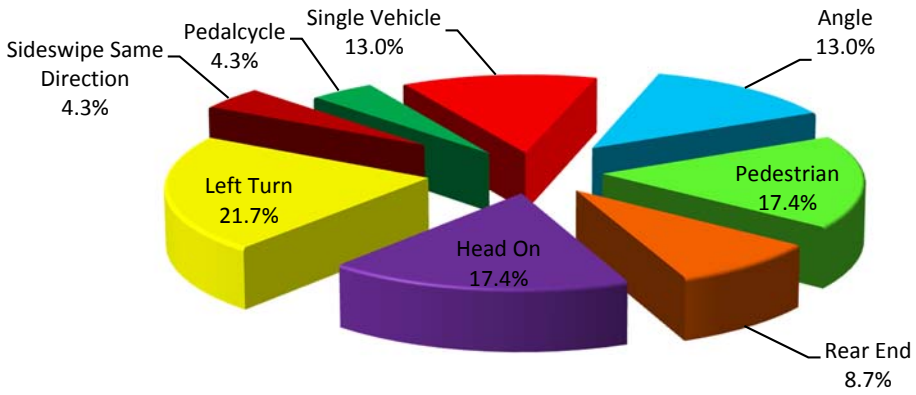
5.2 CRASH MANNER

In 2013, 21.7% of all fatal crashes were left turn crashes followed by pedestrian crashes and head-on crashes each at 17.4%. In 2012, pedestrian crashes were the most frequent fatal crash type followed by single vehicle.

TABLE 8: CRASH MANNER

Crash Manner	Number of Fatal Crashes	Percent of Total Fatal Crashes
Left Turn	5	21.7%
Head-On	4	17.4%
Pedestrian	4	17.4%
Single Vehicle	3	13.0%
Angle	3	13.0%
Rear End	2	8.7%
Pedalcycle	1	4.3%
Sideswipe Same Direction	1	4.3%
Total	23	100%

CHART 14: MANNER OF COLLISON



5.3 CONTRIBUTING FACTORS

In the Police Accident Reports, the unit causing the crash or the unit most at fault is identified as Unit 1 as outlined in the *Arizona Crash Report Forms and Instruction Manual.* The table and chart below break out the 2013 crashes by the contributing factors from the PARs.

5.3.1 VIOLATION/BEHAVIOR – ALL UNITS

Fatal crashes involving failure to keep in proper lane, speed too fast for conditions, did not use crosswalk, and had been drinking alcohol/use of illicit drugs were the leading contributing factors with 14.3% each. Disregarded traffic signal and drove/rode in opposite traffic lane were the second most frequent contributing factors at 10.7% each.

TABLE 9: CAUSE OF CRASH - VIOLATION/BEHAVIOR - ALL UNITS

Contributing Factor*	Number of Contributing Factors	Percentage of Total Contributing Fatal Crash Factors
Failed To Keep In Proper Lane	4	14.3%
Speed Too Fast For Conditions	4	14.3%
Did Not Use Crosswalk	4	14.3%
Had Been Drinking Alcohol/Use of Illicit Drugs	4	14.3%
Disregarded Traffic Signal	3	10.7%
Drove/Rode in Opposite Traffic Lane	3	10.7%
Failed to Yield Right-of-Way	2	7.1%
Made Improper Turn	2	7.1%
Unknown	1	3.6%
Prescription Drugs	1	3.6%
Total	28	100.0%

*One fatal crash can have more than one contributing factor and/or both units can contribute to a crash.

5.3.2 ALCOHOL AND DRUGS AS CONTRIBUTING FACTORS

Alcohol or drugs were a contributing factor in 17.4% of all fatal crashes. The percentage of 2013 fatal crashes involving possible alcohol or drug involvement was much lower than the five year average of 33.6%.

TABLE 10: ALCOHOL/DRUGS AS CONTRIBUTING FACTORS

Violation of Unit Causing or Most at Fault in a Crash	Number of Fatal Crashes	Number of Fatal Crashes Alcohol / Drugs Involved	Percent of Total Fatal Crashes Alcohol / Drugs Involved
Failed To Keep In Proper Lane	4	1	4.3%
Speed Too Fast For Conditions	4	-	-
Did Not Use Crosswalk	4	2	8.7%
Disregarded Traffic Signal	3	-	-
Drove/Rode in Opposite Traffic Lane	3	-	-
Failed to yield Right-of-Way	2	1	4.3%
Made Improper Turn	2	-	-
Unknown	1	-	-
Total	23	4	17.4%

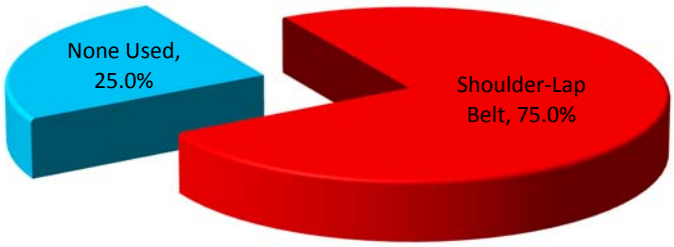
TABLE 11: ALCOHOL/DRUGS - FIVE YEAR TREND

Year	Number of Fatal Crashes	Number of Fatal Crashes Alcohol / Drugs Involved	Percent of Total Fatal Crashes Alcohol / Drugs Involved
2009	19	6	31.6%
2010	15	4	26.7%
2011	27	17	63.0%
2012	24	7	29.2%
2013	23	4	17.4%
Average	21.6	7.6	33.6%

5.3.3 SAFETY DEVICE USAGE

VICTIM RESTRAINT USAGE. There were 12 fatal crashes resulting in 16 fatalities where the victims could have utilized a restraint safety device in a motor vehicle. The occupant receiving fatal injuries was utilizing a restraint safety device in 12 of the 16 fatalities. The remaining fatal injury victims were either on motorcycles, pedalcycles, or were pedestrians.

CHART 16: VICTIM RESTRAINT USAGE



MOTORCYCLE HELMET USAGE. The motorcycle driver was not wearing a helmet in three of the six fatal motorcycle crashes that occurred.

PEDALCYCLE HELMET USAGE. The pedalcyclist was not wearing a helment in the one fatal pedalcycle crash.

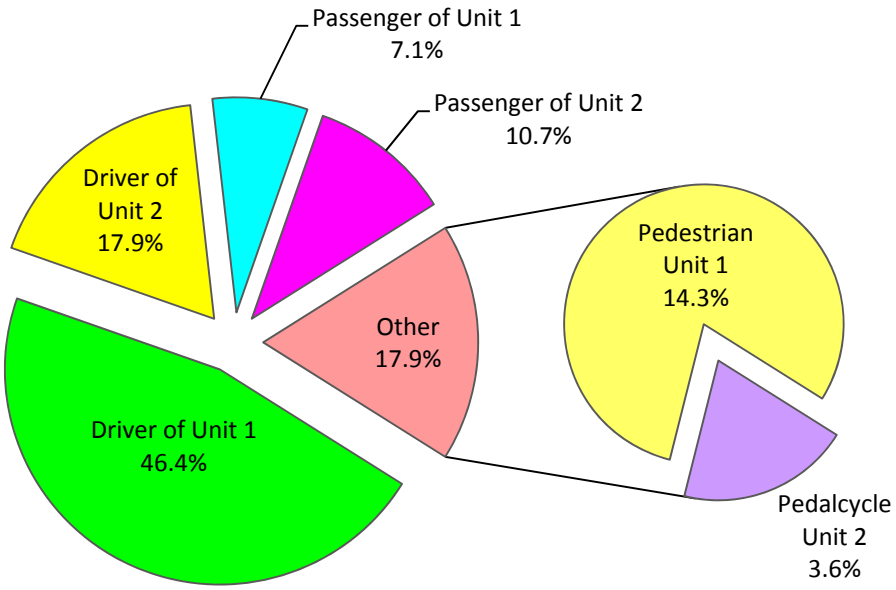
5.4 LOCATION OF VICTIM

The driver of the unit most at fault, unit 1, had the highest frequency of fatalities among the 28 fatalities.

TABLE 12: LOCATION OF VICTIM

Location of victim	Number of Fatalities	Percentage of Total Fatalities
Driver of Unit 1	13	46.4%
Driver of Unit 2	5	17.9%
Passenger of Unit 1	2	7.1%
Passenger of Unit 2	3	10.7%
Pedalcyclist in Roadway	1	3.6%
Pedestrian in Roadway	4	14.3%
Total	28	100%

CHART 15: LOCATION OF VICTIM



6.0 HISTORY

6.1 MONTH – FIVE YEAR HISTORY

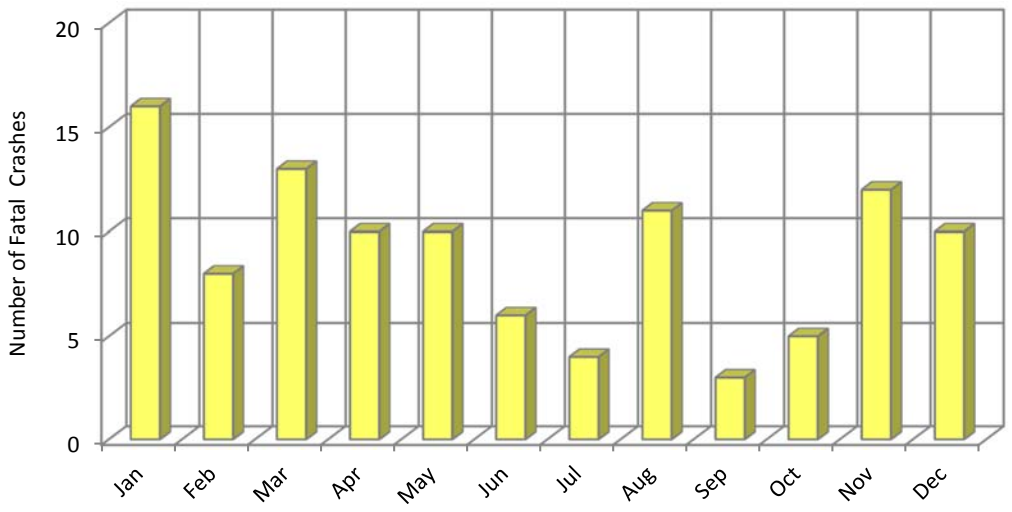
January, May, June, and July shared the highest number of crashes in 2013; three fatal crashes.

TABLE 13: MONTH - FIVE YEAR HISTORY

Month / Year	2009	2010	2011	2012	2013	Total	% of Total Fatal Crashes
January	5	3	1	4	3	16	14.8%
February	2	2	2	1	1	8	7.4%
March	2	2	2	6	1	13	12.0%
April	2	2	3	1	2	10	9.3%
May	-	3	2	2	3	10	9.3%
June	-	-	2	1	3	6	5.6%
July	1	-	-	-	3	4	3.7%
August	-	2	4	3	2	11	10.2%
September	-	-	1	1	1	3	2.8%
October	1	1	1	1	1	5	4.6%
November	3	-	6	2	1	12	11.1%
December	3	-	3	2	2	10	9.3%
Total	19	15	27	24	23	108	100.0%

0 = Month with highest frequency of fatal crashes.

CHART 17: MONTH - FIVE YEAR HISTORY



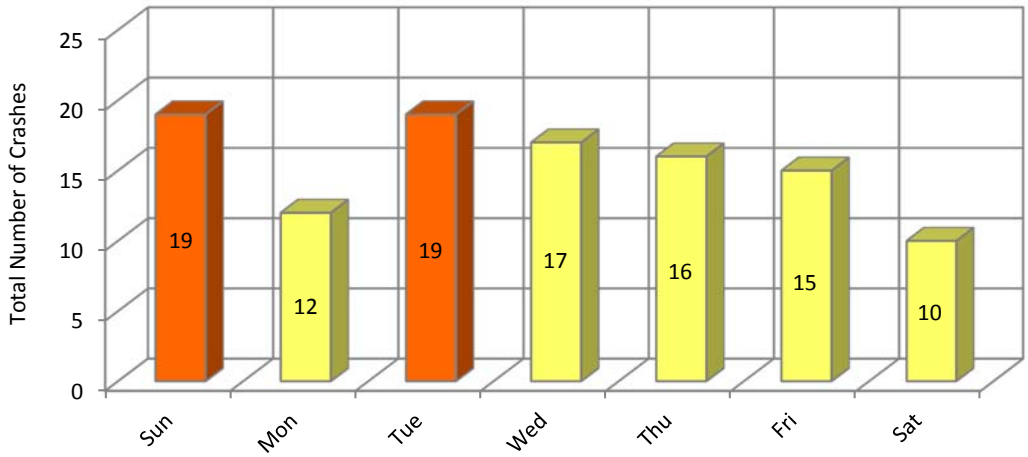
6.2 DAY – FIVE YEAR HISTORY

Nationally, Friday through Sunday has historically experienced the highest frequency of fatal crashes by day of week over the past five years. In Mesa Sunday and Tuesday shared the most frequent day of week crashes with 17.6% followed by Wednesday with 15.7%.

TABLE 14: DAY - FIVE YEAR HISTORY

Year / Day	Number of Fatal Crashes 2009	Number of Fatal Crashes 2010	Number of Fatal Crashes 2011	Number of Fatal Crashes 2012	Number of Fatal Crashes 2013	Total Number of Fatal Crashes	Percent of Total Fatal Crashes
Sunday	4	1	5	6	3	19	17.6%
Monday	1	1	4	4	2	12	11.1%
Tuesday	4	5	4	2	4	19	17.6%
Wednesday	5	2	3	1	6	17	15.7%
Thursday	4	-	4	5	3	16	14.8%
Friday	1	3	3	5	3	15	13.9%
Saturday	-	3	4	1	2	10	9.3%
Total	19	15	27	24	23	108	100.0%

CHART 18: DAY - FIVE YEAR HISTORY



6.3 TIME – FIVE YEAR HISTORY

TIME OF DAY. The number of cars and trucks on Mesa's streets at any given time of the day has a direct correlation to the likelihood of being involved in a fatal traffic crash. Weekday evening "rush hours" continue to have the highest frequency of fatal crashes. During the past five years, 39.8% of all fatalities have occurred within the hours from 2:01 PM - 8:00 PM.

TABLE 15: TIME - FIVE YEAR HISTORY

Hour / Year	2009	2010	2011	2012	2013	Total	% of Total Fatal Crashes
00:01 AM - 01:00 AM	1	1	1	1	-	4	3.7%
01:01 AM - 02:00 AM	1	1	-	-	1	3	2.8%
02:01 AM - 03:00 AM	1	1	1	-	-	3	2.8%
03:01 AM - 04:00 AM	-	-	2	-	-	2	1.9%
04:01 AM - 05:00 AM	-	-	1	-	-	1	0.9%
05:01 AM - 06:00 AM	2	-	1	-	-	3	2.8%
06:01 AM - 07:00 AM	1	-	-	1	-	2	1.9%
07:01 AM - 08:00 AM	-	-	1	-	1	2	1.9%
08:01 AM - 09:00 AM	-	-	-	-	-	-	-
09:01 AM - 10:00 AM	-	-	1	2	2	5	4.6%
10:01 AM - 11:00 AM	-	-	3	1	-	4	3.7%
11:01 AM - 12:00 PM	1	-	-	2	5	8	7.4%
12:01 PM - 01:00 PM	1	-	-	-	-	1	0.9%
01:01 PM - 02:00 PM	-	2	1	-	2	5	4.6%
02:01 PM - 03:00 PM	2	1	5	2	-	10	9.3%
03:01 PM - 04:00 PM	1	1	1	3	-	6	5.6%
04:01 PM - 05:00 PM	2	2	1	2	-	7	6.5%
05:01 PM - 06:00 PM	1	-	1	-	1	3	2.8%
06:01 PM - 07:00 PM	2	1	1	-	3	7	6.5%
07:01 PM - 08:00 PM	2	3	-	4	1	10	9.3%
08:01 PM - 09:00 PM	-	1	2	1	4	8	7.4%
09:01 PM - 10:00 PM	1	-	-	1	1	3	2.8%
10:01 PM - 11:00 PM	-	-	4	2	2	8	7.4%
11:01 PM - 12:00 AM	-	1	-	2	-	3	2.8%
Total	19	15	27	24	23	108	100.0%

0 = Hour with highest frequency of fatal crashes

CHART 19: TIME - FIVE YEAR HISTORY

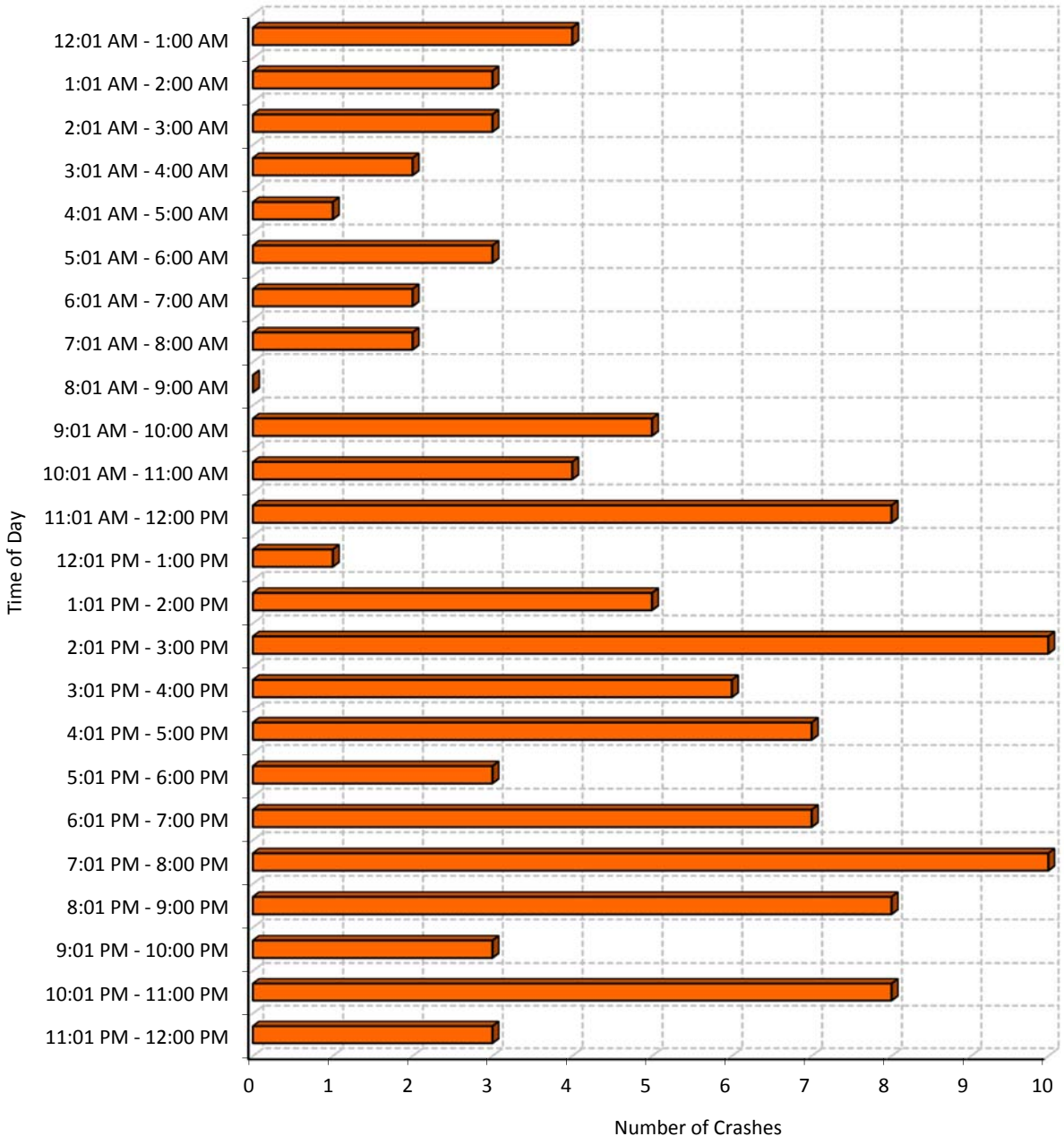


TABLE 16: TIME OF THE DAY and MANNER OF COLLISION

In 2013, 52.2% of all fatal crashes occurred between the hours of 5:01 PM and 11:00 PM.

Hour / Manner	Angle	Rear End	Head-On	Left Turn	Sideswipe Same Direction	Other	Single Vehicle	Pedestrian	Pedalcyclist	Total	% of Total Fatal Crashes
00:01 AM - 01:00 AM	-	-	-	-	-	-	-	-	-	-	-
01:01 AM - 02:00 AM	-	-	-	-	-	-	1	-	-	1	4.5%
02:01 AM - 03:00 AM	-	-	-	-	-	-	-	-	-	-	-
03:01 AM - 04:00 AM	-	-	-	-	-	-	-	-	-	-	-
04:01 AM - 05:00 AM	-	-	-	-	-	-	-	-	-	-	-
05:01 AM - 06:00 AM	-	-	-	-	-	-	-	-	-	-	-
06:01 AM - 07:00 AM	-	-	-	-	-	-	-	-	-	-	-
07:01 AM - 08:00 AM	-	-	-	-	-	-	1	-	-	1	4.5%
08:01 AM - 09:00 AM	-	-	-	-	-	-	-	-	-	-	-
09:01 AM - 10:00 AM	1	-	1	-	-	-	-	-	-	2	9.1%
10:01 AM - 11:00 AM	-	-	-	-	-	-	-	-	-	-	-
11:01 AM - 12:00 PM	2	-	-	1	1	-	-	1	-	5	22.7%
12:01 PM - 01:00 PM	-	-	-	-	-	-	-	-	-	-	-
01:01 PM - 02:00 PM	-	1	1	-	-	-	-	-	-	2	9.1%
02:01 PM - 03:00 PM	-	-	-	-	-	-	-	-	-	-	-
03:01 PM - 04:00 PM	-	-	-	-	-	-	-	-	-	-	-
04:01 PM - 05:00 PM	-	-	-	-	-	-	-	-	-	-	-
05:01 PM - 06:00 PM	-	-	-	1	-	-	-	-	-	1	4.5%
06:01 PM - 07:00 PM	-	-	-	-	-	-	-	2	1	3	13.6%
07:01 PM - 08:00 PM	-	-	-	-	-	-	1	-	-	1	4.5%
08:01 PM - 09:00 PM	-	1	1	2	-	-	-	-	-	4	18.2%
09:01 PM - 10:00 PM	-	-	-	1	-	-	-	-	-	1	4.5%
10:01 PM - 11:00 PM	-	-	1	-	-	-	-	1	-	2	4.5%
11:01 PM - 12:00 AM	-	-	-	-	-	-	-	-	-	-	-
Total	3	2	4	5	1	0	3	4	1	23	100.0%

0 = Fatal crash possibly involving alcohol or drugs.

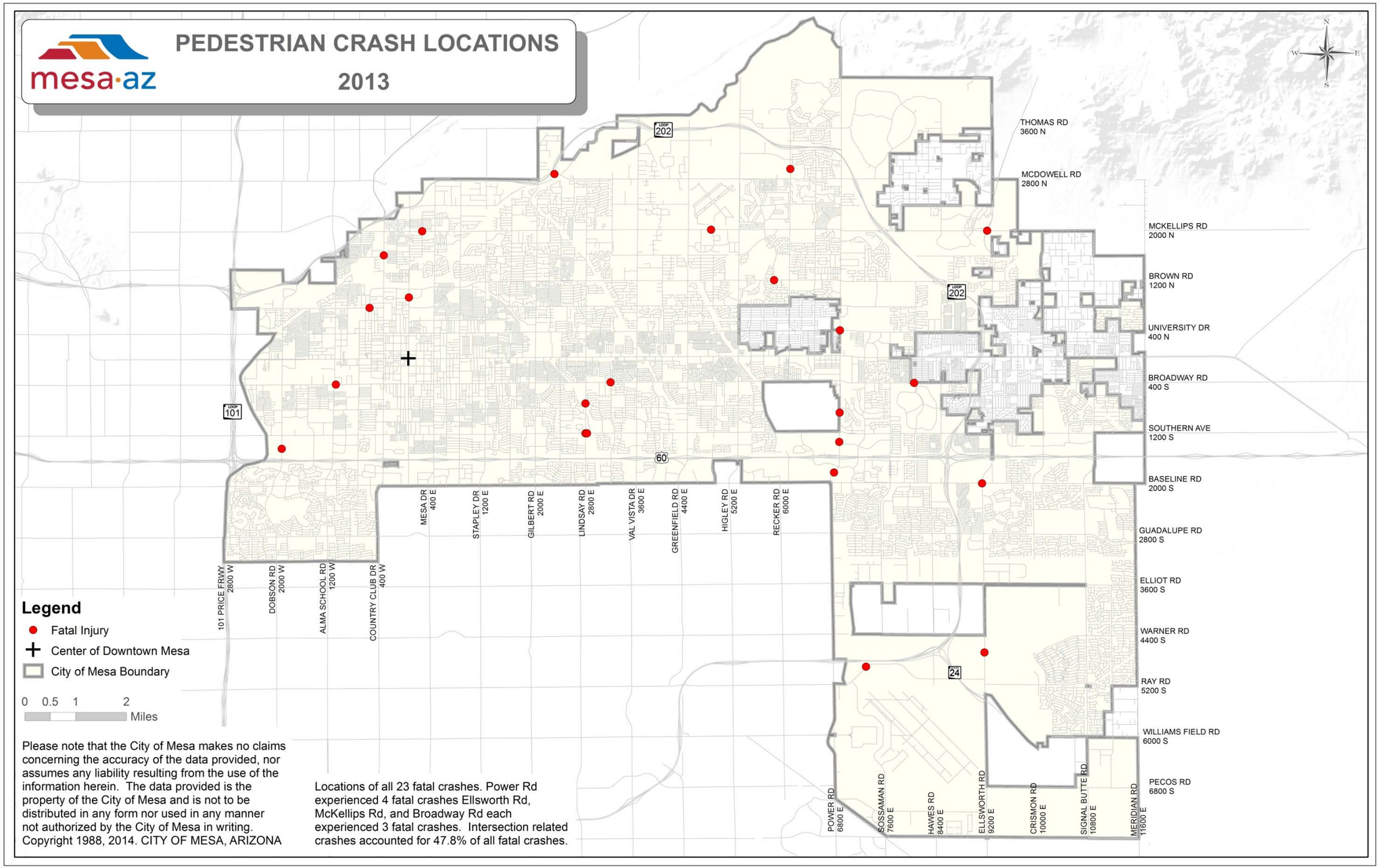
7.0 APPENDIX

7.1 2013 FATAL CRASH LOCATIONS MAP

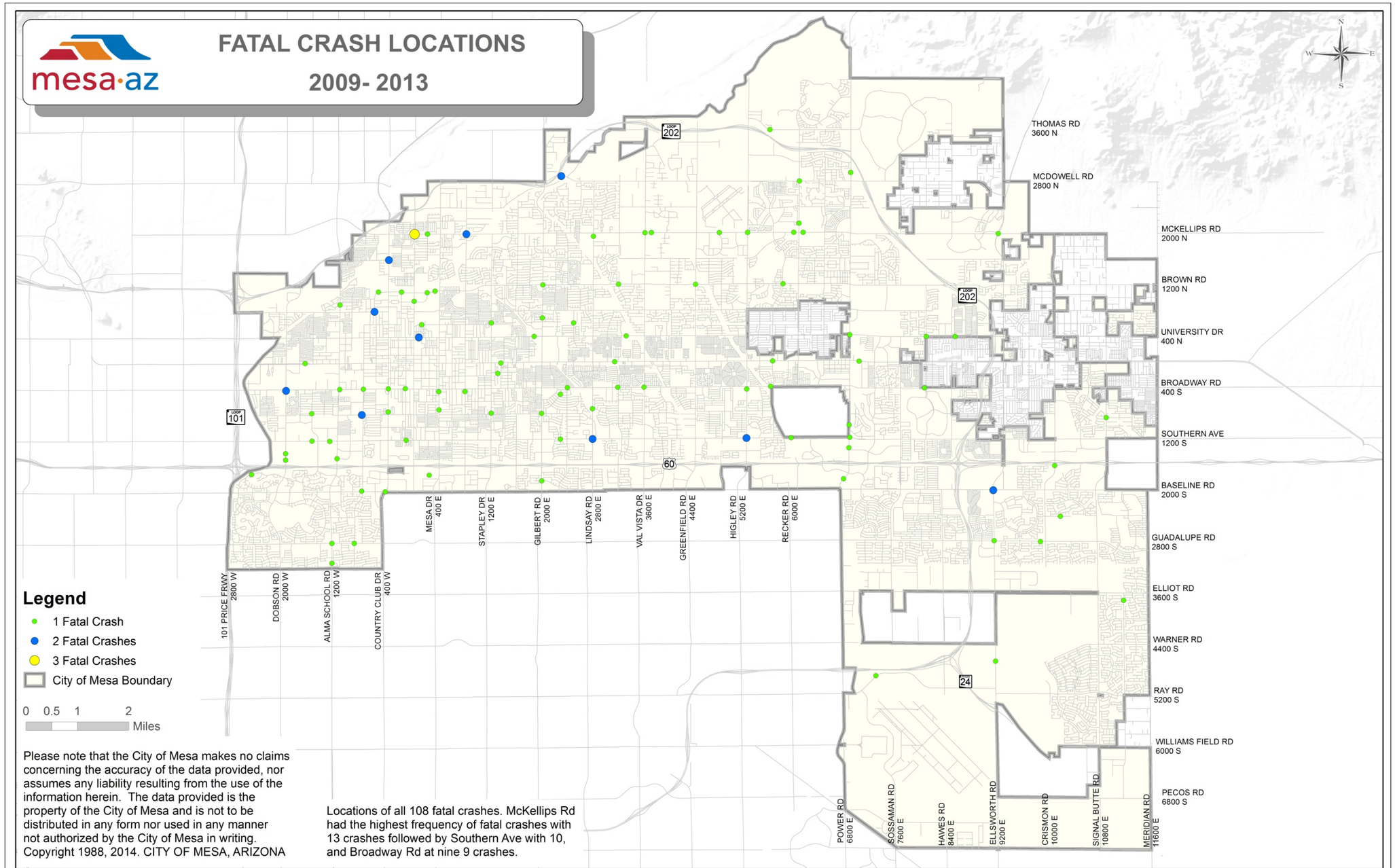
7.2 2009-2013 FATAL CRASH LOCATION MAP

7.3 2013 FATAL CRASH SUMMARY

7.1 2013 FATAL CRASH LOCATIONS MAP



7.2 2009-2013 FATAL CRASH LOCATIONS MAP



7.3 2013 FATAL CRASH SUMMARY

Report Number	Date	Time	Day	Location	Gender /Age	Seat Belt	Alcohol /Drugs	Comments
20130190519	1/19/2013	5:06 PM	SAT	Broadway Rd & 32nd St	M/75	N/A	-	Left Turn. Unit 1 failed to yield right-of-way making left turn and collided with Unit 2 (motorcycle no helmet). Victim: Unit 2 driver.
20130260286	1/26/2013	11:01 AM	SAT	Lindsay Rd & Pueblo Ave	M/24	Yes	-	Angle. Unit 1 disregarded traffic signal and collided with Unit 2. Victim: Unit 2 driver.
20130270316	1/27/2013	1:46 PM	SUN	Recker Rd & McDowell Rd	F/86, M/87	Yes, Yes	-	Head-On. Unit 1 crossed into oncoming traffic and collided with Unit 2. Victims: Unit 1 driver, Unit 1 Passenger.
20130500359	2/19/2013	11:49 AM	TUE	McDowell Rd & SR 202 Exit 17C Ramp	F/58	Yes	-	Angle. Unit 1 disregarded traffic signal and collided with Unit 2. Victim: Unit 1 driver.
20130770176	3/18/2013	7:52 AM	MON	Power Rd & Hampton Ave	M/54	No	-	Single Vehicle. Unit 1 failed to keep in proper lane and struck a light pole in the median. Victim: Unit 1 driver.
1776	4/3/2013	9:24 AM	WED	Usery Pass Rd & McKellips Rd	M/71	Yes	-	Angle. Unit 1 disregarded traffic signal and collided with Unit 2. Victim: Unit 2 driver.
20131050699	4/15/2013	8:20 PM	MON	Power Rd & Superstition Springs Blvd	M/22	N/A	-	Left Turn. Unit 1 (motorcycle no helmet) speeding collided with Unit 2 during left turn. Victim Unit 1 driver.
20131350311	5/15/2013	11:12 AM	WED	Lindsay Rd & Southern Ave	M/65	N/A	-	Left Turn. Unit 1 failed to yield right-of-way making left turn and struck Unit 2 (motorcycle no helmet). Victim Unit 2 driver.
20131630748	5/16/2013	9:01 PM	THUR	8th St & Date St	M/19	N/A	-	Left Turn. Unit 1 (motorcycle no helmet) speeding collided with Unit 2 making left turn. Victim: Unit 1 driver.
20131440868	5/24/2013	10:18 PM	FRI	Power Rd & University Dr	F/31	N/A	Alcohol	Single Vehicle. Unit 1 (pedestrian) did not use crosswalk and was struck by Unit 2. Victim: Unit 1 pedestrian.
20131630748	6/12/2013	8:48 PM	WED	Country Club Dr & McLellan Rd	M/39	N/A	-	Rear End. Unit 1 (motorcycle helmet unknown) speeding collided with Unit 2 from behind. Victim: Unit 1 driver.
20131690035	6/18/2013	1:42 AM	TUE	Dobson Rd & US 60 Exit 177 C Ramp	M/68	Yes	-	Single Vehicle. Unit 1 made improper turn and collided with a sign structure. Victim: Unit 1 driver.
20131770639	6/26/2013	8:08 PM	WED	Brown Rd & Alta Mesa Dr	M/46, M/40	No, Yes	Alcohol	Head-On. Unit 1 crossed into oncoming traffic and collided with unit 2. Victim: Unit 1 driver, Unit 2 passenger.
20131850750	7/4/2013	10:59 PM	THUR	Southern Ave & Robin Ln	M/17	No	-	Head-On. Unit 1 crossed into oncoming traffic and collided with unit 2. Victim: Unit 1 driver.
20131860501	7/5/2013	6:08 PM	FRI	Pasadena & McKellips Rd	M/65	N/A	-	Single Vehicle. Unit 1 (pedestrian) did not use crosswalk and was struck by Unit 2. Victim: Unit 1 pedestrian.
20132110325	7/30/2013	11:02 AM	TUE	Broadway Rd & 80th St	F/86	No	-	Sideswipe Same Direction. Unit 1 made improper turn in front of Unit 2. Victim: Unit 1 driver.
20132230383	8/11/2013	1:26 PM	SUN	Broadway Rd & Alma School Rd	M/35	Yes	Drugs	Rear End. Unit 1 speeding and collided with Unit 2 from behind. Victim: Passenger of Unit 2.
20132250679	8/13/2013	6:42 PM	TUE	Ray Rd & Power Rd	M/68	N/A	Alcohol	Single Vehicle. Unit 1 failed to keep in proper lane struck Unit 2 (pedalcyclist no helmet). Victim: Unit 2 pedalcyclist.
20132470298	9/4/2013	9:51 AM	WED	Ellsworth Rd & Warner Rd	M 18, M 58, F 68	Yes, Yes, Yes	-	Head-On. Unit 1 failed to keep in proper lane crossed into oncoming traffic and collided with Unit 2. Victims: Unit 1 driver, Unit 1 passenger, Unit 2 passenger
20132830622	10/10/2013	8:43 PM	THUR	Ellsworth Rd & Baseline Rd	M 44	N/A	-	Left Turn. Unit 1 (motorcycle no helmet) collided with Unit 2 making left turn, unknown violation. Victim: Unit 1 driver.

Report Number	Date	Time	Day	Location	Gender / Age	Seat Belt	Alcohol /Drugs	Comments
20133050557	11/1/2013	6:24 PM	FRI	CENTER ST & 9TH PL	M 80	N/A	-	Single Vehicle. Unit 1 (pedestrian with walker) did not use crosswalk and was struck by Unit 2. Victim: Unit 1 pedestrian.
20133350616	12/1/2013	7:35 PM	SUN	MCKELLIPS RD & 48TH ST	M 66	No	-	Single Vehicle. Unit 1 failed to keep in lane left the roadway and struck a pole. Victim: Unit 1 driver.
20133450288	12/11/2013	11:40 AM	WED	POWER RD & PUEBLO AVE	M 68	N/A	-	Single Vehicle. Unit 1 (pedestrian) did not use crosswalk and was struck by Unit 2. Victim Unit 1 pedestrian.